

CLAIMS

What is claimed is:

5 ~~Sub A~~ 1. A system for forming a pivot, comprising:

a first member;

a second member; and

10 a pivot structure having a head, a body connected
to the head, a stop and a lip, the body
extending through the first member and the
second member, the first member having a
15 plastically deformed region receiving the
head, the lip being deformed generally
towards the stop to prevent separation of the
second member from the first member during
relative pivotal motion between the first and
20 the second member.

~~Sub B, 7~~ 2. The system as recited in claim 1, wherein the body
has a generally circular cross-section.

3. The system as recited in claim 2, wherein the lip encircles the stop.

5 4. The system as recited in claim 1, wherein the body comprises a relief cut proximate the head to receive material from the first member during formation of the plastically deformed region.

10 5. The system as recited in claim 2, wherein the head has a plurality of flat sides.

6. The system as recited in claim 5, wherein the flat sides are arranged in a hexagon.

15 7. The system as recited in claim 1, wherein the first member is formed from a metal sheet material.

8. The system as recited in claim 7, wherein the
20 metal sheet material is a portion of a computer chassis.

9. A method of creating a pivot, comprising:

placing a pivot structure with a head, a body, a
stop and a retention feature proximate a
first member;

5 moving the body through the first member until the
head plastically deforms the first member;

pivotably mounting a second member to a portion of
the body extending through the first member;
10 and

deforming the retention feature with a tool until
the tool strikes the stop.

15 10. The method as recited in claim 9, wherein moving
comprises moving the body through an opening formed in the
first member.

11. The method as recited in claim 9, wherein
20 deforming comprises bending the retention feature.

12. The method as recited in claim 9, wherein
deforming comprises bending a generally circular retention
feature surrounding the stop.

5 13. The method as recited in claim 9, further
comprising selecting a gap between the head and the deformed
retention feature by selecting a desired distance between
the head and the stop.

10 14. The method as recited in claim 9, wherein moving
comprises moving the body through a sheet metal portion of
the first member.

15 15. The method as recited in claim 14, further
comprising forming a hole through the sheet metal portion
sufficiently large to permit unobstructed passage of the
body while obstructing passage of the head.

20 16. A device that may be secured to a first member
through plastic deformation of the first member and to which
a second member may be mounted for relative pivotal motion
between the first member and the second member, comprising:

a body;

a head disposed at one end of the body;

5 a deformable retention member disposed at a
generally opposite end of the body from the
head; and

10 a stop positioned a predetermined distance from
the head to permit control of the deformation
of the deformable retention member.

15 17. The device as recited in claim 16, wherein the
deformable retention member comprises a generally circular
lip.

18. The device as recited in claim 17, wherein the
stop is disposed within the generally circular lip.

20 19. The device as recited in claim 18, wherein the
head comprises a plurality of flat sides to better secure
the head to the first member during plastic deformation of
the first member.

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add B_1^5